

INTERNATIONAL SEARCH REPORT

Initial Application No
PCT/DK2004/000704

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F03B13/18 F03B11/06 F16C27/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 F03B F16C F03D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 986 349 A (EBERLE ET AL) 16 November 1999 (1999-11-16)	1-3, 9-11
Y	column 3, line 12 - line 45	13, 15-21, 28, 29
A	column 4, line 53 - column 7, line 62 abstract; figures	4-8
X	US 4 013 382 A (DIGGS ET AL) 22 March 1977 (1977-03-22) cited in the application column 4, line 38 - column 6, line 33 column 6, line 67 - column 8, line 35 abstract; figures	1-3, 9-11
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

9 February 2005

Date of mailing of the international search report

22/02/2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6 476 511 B1 (YEMM RICHARD ET AL) 5 November 2002 (2002-11-05) cited in the application	13
A	column 1, line 36 - line 53 column 5, line 11 - line 45 column 8, line 10 - line 46 column 10, line 6 - column 11, line 19 figures 3,6,7,10,11	12
Y	WO 89/07197 A (BURTON, LAWRENCE, C) 10 August 1989 (1989-08-10) page 4 - page 9 abstract; figures	15-29
A	FR 2 532 691 A (GARZON ASTETE JORGE) 9 March 1984 (1984-03-09) page 3, line 14 - page 5, line 7 abstract; figures	15-21
Y	US 4 223 962 A (ZIELFLEISCH ET AL) 23 September 1980 (1980-09-23) column 1, line 6 - line 64 column 2, line 62 - column 4, line 7 abstract; claims 1-6,11; figures	22-25,27
Y	GB 2 062 130 A (SALTER S H) 20 May 1981 (1981-05-20) page 1, line 67 - line 115 abstract; figures	26

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-14,29

A wave power apparatus comprising a plurality of arms with floats attached at one end so that movement of the float caused by a wave results in rotation of the arm around a shaft. The arms are arranged in a row which forms an angle of ± 60 degrees with respect to the wave heading

2. claims: 1,15-21

A wave power apparatus comprising a plurality of arms with floats attached at one end so that movement of the float caused by a wave results in rotation of the arm around a shaft. The arms are arranged in a row. A supporting structure in the form of a truss structure which is anchored to the sea floor supports power conversion means and the shaft. Further features relating to the support structure are provided.

3. claims: 1,22-27

A wave power apparatus comprising a plurality of arms with floats attached at one end so that movement of the float caused by a wave results in rotation of the arm around a shaft. The arms are arranged in a row. The arm is connected to the shaft at at least two points which are offset from the axis of the arm and the shaft is rotatably supported by a fixed support comprising two bearings arranged to counteract radial and axial forces.

4. claims: 1,28,29

A wave power apparatus comprising a plurality of arms with floats attached at one end so that movement of the float caused by a wave results in rotation of the arm around a shaft. The arms are arranged in a row. A hydraulic lift system is provided for lifting the floats out of the ocean.

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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Information on patent family members

Int. Application No
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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5986349	A	16-11-1999	NONE	
US 4013382	A	22-03-1977	GB 1524147 A	06-09-1978
US 6476511	B1	05-11-2002	AT 259936 T AU 754950 B2 AU 6213799 A DE 69914929 D1 DE 69914929 T2 DK 1115976 T3 EP 1115976 A1 ES 2216571 T3 WO 0017519 A1 JP 2002525489 T PT 1115976 T ZA 200102088 A	15-03-2004 28-11-2002 10-04-2000 25-03-2004 16-12-2004 21-06-2004 18-07-2001 16-10-2004 30-03-2000 13-08-2002 30-07-2004 13-12-2002
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GB 2062130	A	20-05-1981	NONE	